

Abstract

The present invention provides a polymer composition for the selective removal of cobalt, a process for the preparation thereof and the process for removal of cobalt, using the said polymer composition. More particularly it relates to a cross-linked polymer composition prepared by the molecular imprinting technique. The preparation of the cross linked polymer involves selection of vinyl monomers bearing functional groups that bind to cobalt, formation of a complex of these monomers with cobalt and subsequent polymerization of the complex in presence of a crosslinker. The process for the removal of cobalt comprises treating the solution containing a mixture of cobalt and other metal ions with the polymer under conditions sufficient for cobalt to form a complex with the polymer and separating the polymer from the cobalt depleted solution.

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